IN THE CLAIMS

1. (Currently amended) A hot-wire type air flow meter for an internal combustion engine, comprising:

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an exothermic resistor film provided on a thin portion formed on a silicon substrate arranged in a suction pipe of the internal combustion engine and emits heat to an air through said resistor film; and

a control circuit for controlling a voltage to be applied to said resistor film or a current to be supplied, said control circuit being configured such that, [in the case] where a liquid droplet is deposited onto said resistor film, said applied voltage is controlled to a value smaller than a voltage which is applied to said resistor film at the time of measuring a maximum [specified] measuring of an air flow rate within said suction pipe when a liquid droplet is not deposited onto said resistor film range or said supply current is controlled to a value smaller than a current flowing in said resistor film at the time of measuring the maximum [specified] measuring range.

2. (Original) A meter according to claim 1, further comprising another exothermic resistor provided on said silicon substrate in a portion other than said thin portion.

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3. (Currently amended) A hot-wire type air flow meter for an internal combustion engine, comprising:

a first resistor film[, which is] provided on a thin portion formed on a silicon substrate[, is] and arranged in a suction pipe of the internal combustion engine [and emits] to emit heat to a measuring fluid through said first resistor

film [and generates heat] and a second resistor film whose resistance value changes in accordance with an ambient temperature; and

a control circuit which has a bridge circuit including said second resistor film and controls a voltage to be applied to said first resistor film or a current to be [supplies] supplied, said control circuit being configured such that,

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[in the case] where an output of said bridge circuit is larger than a [certain] specified value, said applied voltage is controlled to [a value] be smaller than a voltage which is applied to said first resistor film [at the time of] when measuring a maximum [specified] measuring range of an air flow rate within said suction pipe when a liquid drop is not deposited onto such first resistor film or said supply current is controlled to a value smaller than a current flowing in said first resistor film [at the time of] when measuring the maximum [specified] measuring range.

4. (Original) A meter according to claim 3, further comprising another exothermic resistor provided on said silicon substrate in a portion other than said thin portion.

5. (Previously amended) A hot-wire type air flow meter for an internal combustion engine, comprising:

an exothermic resistor arranged in a measuring fluid and emitting heat to a measuring fluid;

a control circuit for controlling a voltage to be applied to said resistor or a current to be supplied;

first limiting means for limiting said applied voltage or said supplied current to a value which is equal to or less than a first value; and

second limiting means for limiting said applied voltage or said supplied current to a value which is equal to or less than a second value smaller than said first value,

said control circuit being configured such that, in the case where a liquid droplet is deposited onto said resistor, said applied voltage or said supplied current is limited to a value which is equal to or less than said second value.

6. (Original) A meter according to claim 5, further comprising changing means for changing a predetermined value or said second value on the basis of a temperature of the liquid droplet or a measuring fluid.

7. (Original) A meter according to claim 5, further comprising changing means for changing said predetermined value or said second value on the basis of an output of a resistor which is arranged in said measuring fluid and whose resistance value changes in accordance with an ambient temperature.

8. (Original) A meter according to claim 7, wherein said changing means changes the value so as to reduce said predetermined value or said second value when said resistance value increases or changes the value so as to increase said predetermined value or said second value when said resistance value decreases.

9. (Original) A meter according to claim 5, wherein said exothermic resistor is a thin film resistor provided on a thin portion formed on a silicon substrate and arranged in a suction pipe of the internal combustion engine.

10. (Original) A meter according to claim 9, further comprising another exothermic resistor provided on said silicon substrate in a portion other than said thin portion.

11. (Original) A meter according to claim 10, wherein a heat generation of said another exothermic resistor is controlled independent of said exothermic resistor.

12. (Previously amended) A hot-wire type air flow meter for an internal combustion engine, comprising:

an exothermic resistor arranged in a measuring fluid and emitting heat to said measuring fluid; and

a control circuit for controlling a voltage to be applied to said resistor or a current to be supplied, said control circuit being configured such that,
in the case where a liquid droplet is deposited onto said resistor, said control circuit controls said applied voltage or said supplied current so that a generation heat amount per unit area of said resistor is smaller than an amount of heat by which a burn-out occurs at an interface between said resistor and said liquid droplet.

13. (Previously amended) A hot-wire type air flow meter for an internal combustion engine, comprising:

an exothermic resistor arranged in a measuring fluid and emitting heat to said measuring fluid; and

a control circuit for controlling a voltage to be applied to said resistor or a current to be supplied, said control circuit being configured such that,

in the case where a liquid droplet is deposited onto said resistor, said control circuit controls said applied voltage or said supplied current so that a generation heat amount per unit area of said resistor is smaller than a predetermined value.

14. (Original) A meter according to claim 13, wherein said predetermined value is equal to 4×10^5 W/m^2.

15. (Original) A meter according to claim 13, further comprising changing means for changing said predetermined value or said second value on the basis of a temperature of the liquid droplet or said measuring fluid.

16. (Original) A meter according to claim 13, further comprising changing means for changing said predetermined value or said second value on the basis of an output of a resistor which is arranged in said measuring fluid and whose resistance value changes in accordance with an ambient temperature.

17. (Original) A meter according to claim 16, wherein said changing means changes the value so as to reduce said predetermined value or said second value when said resistance value increases or changes the value so as to increase said predetermined value or said second value when said resistance value decreases.

18. (Currently amended) A hot-wire type air flow meter for an internal combustion engine, comprising:

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a first resistor which is arranged in a measuring fluid and generates heat emitted to said measuring fluid, and a second resistor whose resistance value changes in accordance with an ambient temperature;

a control circuit which has a bridge circuit including said second resistor and controls a voltage to be applied to said first resistor or a current to be supplied;

first limiting means for limiting said applied voltage or said supply current to a value which is equal to or less than a first value; and

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second limiting means for limiting said applied voltage or said supply current to a value which is equal to or less than a second value smaller than said first value,

said control circuit being configured such that, in the case where an output of said bridge circuit is larger than a [certain] predetermined value, said control circuit limits said applied voltage or said supplied current to [a value which is] be equal to or less than said second value.

19. (Original) A meter according to claim 18, further comprising changing means for changing a predetermined value or said second value on the basis of a temperature of a liquid droplet or said measuring fluid.

20. (Original) A meter according to claim 18, further comprising changing means for changing a predetermined value or said second value on the basis of an output of a resistor which is arranged in said measuring fluid and whose resistance value changes in accordance with the ambient temperature.

21. (Original) A meter according to claim 20, wherein said changing means changes the value so as to reduce said predetermined value or said second value when said resistance value increases or changes the value so as to increase

said predetermined value or said second value when said resistance value decreases.

22. (Previously amended) A hot-wire type air flow meter for an internal combustion engine, comprising:

a first resistor which is arranged in a measuring fluid and generates heat emitted to said measuring fluid, and a second resistor whose resistance value changes in accordance with an ambient temperature, and

a control circuit which has a bridge circuit including said second resistor and controls a voltage to be applied to said first resistor or a current to be supplied, said control circuit being configured such that,

in the case where an output of said bridge circuit is larger than a certain value, said control circuit controls said applied voltage or said supplied current to a value which is smaller than a heat amount by which a burn-out occurs at an interface between said first resistor and a liquid droplet.

23. (Previously amended) A hot-wire type air flow meter for an internal combustion engine, comprising:

a first resistor which is arranged in a measuring fluid and generates heat emitted to said measuring fluid, and a second resistor whose resistance value changes in accordance with an ambient temperature; and

a control circuit which has a bridge circuit including said second resistor and controls a voltage to be applied to an exothermic resistor or a current to be supplied, said control circuit being configured such that,

in the case where an output of said bridge circuit is larger than a certain value, said control circuit controls said applied voltage or said supplied current so that a generation head amount per unit area of said first resistor is smaller than a predetermined value.

24. (Original) A meter according to claim 23, wherein said predetermined value is equal to 4×10^5 W/m^2.

25. (Original) A meter according to claim 23, further comprising changing means for changing said predetermined value or said second value on the basis of a temperature of a liquid droplet or said measuring fluid.

26. (Original) A meter according to clam 23, further comprising changing means for changing said predetermined value or said second value on the basis of an output of a resistor which is arranged in said measuring fluid and whose resistance value changes in accordance with the ambient temperature.

27. (Original) A meter according to claim 26, wherein said changing means changes the value so as to reduce said predetermined value or said second value when said resistance value increases or changes the value so as to increase said predetermined value or said second value when said resistance value decreases.

28. (Original) A meter according to claim 25, wherein said changing means changes the value so as to reduce said predetermined value or said second value when said temperature increases and changes the value so as to increase said predetermined value or said second value when said temperature decreases.

29. (Previously amended) A hot-wire type air flow meter for an internal combustion engine, comprising:

an exothermic resistor arranged in a suction pipe of said internal combustion engine wherein heat is emitted to an air through said resistor;

a control circuit for controlling a voltage to be applied to said resistor or a current to be supplied; and

transmitting means for transmitting a specific signal to a control unit of said internal combustion engine in the case where a liquid droplet is deposited onto said resistor.

30. (Original) A meter according to claim 29, wherein said transmitting means transmits a signal including information regarding an amount of said deposited liquid droplet to the control unit of said internal combustion engine.

31. (Original) A meter according to claim 29, wherein said exothermic resistor is a thin film resistor provided on a thin portion formed on a silicon substrate and arranged in said suction pipe of said internal combustion engine.

32. (Original) A meter according to claim 29, further comprising another exothermic resistor provided on a silicon substrate in a portion other than said thin portion.

33. (Original) A meter according to claim 32, wherein a heat generation of said another exothermic resistor is controlled independent of said exothermic resistor.